HAMATEUR CHATTER

One of the World's Oldest Continuously Active Radio Amateur Clubs - - since 1917

Volume 09 No. 5 August

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From The President's Desk

Dave DeFebo - WB9BWP

Before my latest ranting (been in a bad mood for the last few months - again), some good news. Field Day was the end of June. Were you there? Oh, had to wash the car that weekend, huh? (Sorry, no ranting now). Anyway, we have been kind of nodding off the last few years at Field Day, so this year we tried to pump it up a bit. The result? Well, let's see. We actually ran short of antennas (there were radios wanting for antennas). We did use 2 beams, a dipole, and even a mobile antenna. We had a station operate 6M, 2M, and 70CM, SSB and CW with beams for each band. We had APRS running. We had a telescope. We had solar cells and batteries. We had a portable satellite station. Besides the train depot we had tents, RVs, trailers, sleeping bags, freshly grilled hamburgers, pancakes, eggs, muffins, potato salad, cole slaw, soda, water, 40-10M SSB, 40 and 20 CW, 2M FM (yes you can hit the repeater from there). There is probably a visitor list elsewhere in this issue, and everyone who operated deserves a thank you, but I need to issue a special thank you to the following for the extras they provided. They are (in no particular order) Patrick Moretti for the telescope (ever see sunspots live?) and extra refreshments (!), Matt Planning for chef's duties, Jerry Wahlen for VHF/UHF equipment (including his regular antennas) and working it the whole time, Jim Tromblay for hauling all the club equipment as well as some of his own, John Merkl for most of the CW contacts, and of course Brian White for managing it all and doing the paperwork (not to mention our first satellite contact and APRS demo station). Thanks guys.

This Field Day also had a number of firsts. Our first satellite contact. Our first 6M, 2M, 70CM SSB, 6M and 2M CW contacts. The first Field Day for Mark Tellier who only got his license a few weeks before (and he spent the whole weekend there helping to set up, tear down, man one of the radios almost

Continued on pg 2

Milwaukee Area Nets

DAY	TIME	MHz	ACTIVITY
Daily	6-8 AM	14.290	Wisconsin/Florida (SSB)
Daily	6:30 PM	3.645	WI Slow Speed CW Traffic
Mon-Fri	8:30 AM	3.965	After Breakfast Club (SSB)
Mon.	8:00 PM	146.445	Emergency Net
Mon.	9:00 PM	146.670	ARES Net (Milwaukee-Waukesha)
Mon.	9:00 PM	50.160	6 Mtr. General Net
Tue.	9:00 PM	50.160	6 Mtr. 2nd Shifter's net
Tue.	8:00 PM	144.250	Badger Contesters (SSB)
Tue.	8:00 PM	7.035	A.F.A.R. (CW)
Wed.	8:00 PM	28.365	10/10 International (Milwaukee Ch.) (SSB)

DAY	TIME	MHz	ACTIVITY
Thu	9:00 PM	50.160	6 Mtr. General Interest Net
Thu.	9:00 PM	146.91 -	Computer Net
Fri	8:30 PM	28.490	MRAC W9RH 10 meter Net (SSB)
Fri.	9:00 PM	147.045+	W9RH 2 mtr. FM Net after 10 mtr. net
Sat	9:00 PM	146.910-	Saturday Night Fun Net
Sun.	8:30 AM	3.985	QCWA (Chptr 55) (SSB)
Sun.	10:00 AM	443.800+	FM-38 link to 146.88 Baraboo SWAP Net
Sun.	8:00 PM	28.365	10/10 International (Milwaukee Ch.) (SSB)
Sun.	8:00 PM	146.91-	Information Net
Sun.	9:00 PM	146.91-	Swap Net

Two meter (FM) Frequencies are 600 KHz offset repeaters. FM 38 is + 5 MHz. Ten meter (SSB) frequencies are upper sideband (USB).
Additions and/or corrections are appreciated. Contact: **Pancho Doneis @ (414) 344-4694**

Prez Cont. from pg. 1

full time, and in general see a whole lot of what amateur radio is all about and work his first DX). We continued the tradition of Sunday morning pancakes (though Matt is not quite Barbara, he cooks OK). I think it is safe to say everyone had a great time who was there. If you were not one of those people, I really feel you have to think hard about why you were not part of festivities. For MRAC and especially for some of the newcomers, Field Day is not just a contest and let's get lots of points, it is working amateur radio laboratory for trying radios, antenna setups, operating practices, new modes, and much more. Just ask some of the first-timers.

As part of our trying to establish official committees for ongoing activities, a Field Day/Contest committee will soon be established. there will soon be established a Maybe you would like to lend a hand for next year (we have already procured an additional antenna to play with) or see MRAC listed in other contest results in the magazines. Remember, Field Day is a CLUB activity. MRAC is your club. 'Nuff said.

MRAC has a repeater. Did you know that? Do you have 2M FM gear? If you answered yes to both questions, then why haven't we heard you on the machine? How about other machines? Oh, now I suppose you are going to say that where you live/work/play is not within the range of our machine. Well, that might be true, and that may depend on what day of the week it is. Huh?

Remember, we are not a repeater club. If anything we are an educational based general purpose club.

Well, since we are not a repeater club like 91, 513, 82, we do not have the repeater as our primary focus, both in time and money (and expertise). As a result we will never have a repeater which covers 10 counties with HT coverage from your living room couch. Everyone should know that. But if we are to have a repeater we should be able to cover all of Milwaukee county and well into Ozaukee, Waukesha, Washington and Racine counties (where our members live). We have procured a reasonable location, BUT, we still have some problems. Those problems seem to be related to the repeater hardware itself. The ICOM repeater hardware we have may be less than optimal. We arrive at that conclusion after on the air testing and testing with about $100,000 worth of test equipment in a laboratory setting. Those of us involved with the machine (a small handful of people since the location is a private business with limited access) are growing tired of making excuses and tired of experimenting to solve the problem. That points to maybe having to spend some money in the near future. I said MAYBE. How much and when is still being discussed (we don't want to make multiple mistakes). But hey, amateur radio is about experimenting, right?

So what's the point of all this talk? Well, spending money on the repeater is not going to get more people using it, is it? If not for code practice (by one person, but that is another topic) and Friday night nets the repeater would have almost no use. Why? When in the car, my radio is scanning all area repeaters and simplex. I don't hear many member call signs on other repeaters either. So? Well, with the official entry level license being the Technician license, the first operating for any new ham is often 2M FM. How are new people supposed to find out about the club if they never hear any club members on the same band they are on? Remember, Amateur Radio is a diverse hobby, just like life. We have more modes of communication available to us than I have space to list. 2M FM is just as important as 75M SSB. For local public service work, it is more important. Don't look down your nose at 2M operators, or you just might find yours in an ever shrinking minority. Did you know that recent statistics for license renewals show an increase over previous years? 2001 marks 10 years since the "no-code" Technician license was instituted. 10 years means it is time for license renewals. Renewals are up compared to the last few years. Hmmmm? You figure out what that means.

David B. McKelvey

TECH CLASSES

We will again be conducting Classes for the Tech Class of Amateur license. The Classes will take place at AES (Amateur Electronics Supply at 5710 W. Good Hope Rd.) and they will commence at 12:30 PM on Saturday, September 22. Classes will run for five weeks.

Cost of the class will be:

$5.00 plus book (available at AES) for MRAC members or

$20.00 plus book for nonmembers

Registrations must be in to our Treasurer before Wed. - Sept. 12. Registration after Sept. 12 will be $25.00. Please send registration along with check or money order to:

Lester Hundt - KB9QZQ

Treasurer - MRAC

P. O. Box 070695

Milwaukee, WI 53207-0695

Class size will be limited, so please register early.

MRAC March Board Meeting 6/25/2001

The meeting was called to order at 6:50 PM.

Previous meeting minutes were read and approved as written.

Treasurers report: May $3,794.92 total liquid assets and June $3593.16 total.

Thanks to John, WB9PSE for having us.

Next board meeting will be at Tom's QTH, KB9RLB, our new director. Dave will provide address info with his meeting notice.

The June club meeting will be at Crites Field with the CAF, so no meeting minutes will be taken.

The July meeting will have a discussion between members on what radio's are being used and likes and dislikes.

August meeting will be about Field Day, including a video taken by Roger - W9UVV. The September meeting might be another field trip, this time to the microphone museum on 2nd and National St.

Dave reports that the club auction night brought in $250 for the club. He was disappointed that more people didn't bring more equipment to sell for themselves. The auction was to stimulate interest in coming to an MRAC meeting by outsiders.

Tom, our VEC is going to the NCVEC this year. He will report on their discussions when he gets back. The conference is on the 27th of July.

Brian, K9LCQ, our Field Day Chairman, reports that the club got close to 2000 points this year. Dave says that Bill, W9WCF, has an antenna he will sell to the club so we have one for each of the club radio's. Jerry, WA9CGE, brought his VHF radio's and antennas. Several others brought their stations. All together we had about 8 stations.

We even worked a satellite contact, thanks to Brian, K9LCQ and several members helping. The club picnic was Saturday and Matt, KB9PRC did the cooking. Les, our treasurer will order some Field Day pins from the ARRL.

Jim, WB9LNU, presented Dave with the latest update of the club's BY-LAWS. The final draft will be discussed at the July Board meeting and presented to the membership for a vote at the August meeting. The new draft, which is our Millennium edition, has all the latest details of club operation in it. Example: Email to members, the original number of officers and directors that the club had years ago, an article for all the things we spend money on, repeater , Chatter, equipment, etc.

Classes -- Mark Tellier and Patrick Moretti will run the Tech class in late August. Course format is up to them. The Board will only be involved if they need money to cover any expenses.

Dick, WB9PTC is still doing whatever he can with CW. Total dedication to helping others even after just getting out of the hospital. Talk about ham of the year material!

Roster -- The roster will be available at the July meeting and thereafter.

Dave's photo collection -- still waiting for the members to give him some pictures at their stations and of their antenna's. Will try to make a digital photo collection soon.

Repeater -- Some modifications are being made to the repeater internally to improve the RF shielding between the transmitter and receiver. Also Jerry, WA9CGE, has made a J pole that will be tried to see if the coverage improves.

Christmas Party -- The location is at the Machine Shed and John, WB9PSE, has volunteered to make the detailed arrangements. John is asking for a couple volunteers to help him.

The club has made a $20.00 contribution to QSL.NET (our website host). Howard Parks - KB9VJS, updates the info on the site.

Kitchen duties -- Myron has indicated that he can no longer do the job and Alfred says he will only continue to help behind the counter. We need a volunteer to purchase the soda and doughnuts and bring them to the meeting, as well as help with the serving. No volunteers will result in no snacks or soda being served.

President's final comments -- It's surprising that our members who comment the most about the use of CW are not the ones volunteering to help newcomers and existing members with their CW.

Also there seems to be a tremendous lack of volunteers to do various things such as plan for the Christmas Party etc. The members always expect the Board to do the work for them, which is not the function of the Board. Should Field Day and other club generated contests be controlled by a permanent committee???? If so, who cares enough to volunteer????

Respectfully submitted,

Jim WB9LNU

Jim WB9LNU
Secretary

FIELD DAY, 2001 Shelby County Amateur Radio Club (SCARC)

Location: Shelby County, Alabama, Joe Tucker Park - Helena, AL

Setting: Pavilion on a hill overlooking a lake

Call Sign: W4SHL

Running: 2 B QRP

With a dozen people on hand to assist with set up, preparations to launch a hydrogen balloon were completed. This included making feedline this morning to be used as tuning/matching network for the balloon lofted wire. The matching section was located at the station end of the site's principal HF antenna, an 80 meter j-pole. Creating this line was accomplished by stripping 14 gauge house wire, cutting PVC pipe, and attaching the pipe segments as spacers between dual copper wires. The balloon was to be used to suspend 24 gauge telephone wire (also stripped Field Day morning) for our all band antenna. Shortly after raising the balloon to 500 feet in the air, it bumped into tree branches and was punctured. Didn't even have a chance to work it!

Ken - KS4NX asked where the wire was. In the trees. How far up? Way up.

Great! We will use the wire, attach to the feedline and have a great HF antenna.

Our 10-meter antenna is up and ready; 2 & 6 meters followed. By 3:45 we started operating, a little late, but ready to go. We have one CW station and one voice station. Our first contacts were Vermont and W. Texas.

The other Birmingham area club (BARC) has their Field Day site 100 miles NE of us on top of a mountain. Many SCARC members, who also belong to BARC, helped us set up, then headed to the mountain. Last year, BARC (W4CUE) was 2nd in the country with 8A. Thus, we worked the weekend with 5 to 6 operators. Fame doesn't affect how much fun you can have! We worked a station in the Virgin Islands that even the mountain top crew couldn't get.

Chef Dwayne doing a masterful job on the grill, prepared our evening meal.

He prepared burgers and dogs, with lots of trimmings.

I made my first contact just after 2:30 AM on 15 meters. My initial contacts were West Pennsylvania, Ohio, and North Texas.

For nighttime operating, Coleman lanterns were hung and bug candles lit.

This was our only source of light, remember we used only battery power. They were B-I-G batteries formerly used in a telephone company central office, more on these later.

Michael, KA4VCA, a member who helped make our copper wire and raise antennas, had to work Saturday afternoon and night. He arrived back onsite about 4 AM with a non-ham friend. While they were visiting, a local policeman came by to find out what we were doing. When they all left, the other operators still around went to sleep.

As happened last year, I stayed up and operated by myself until early morning. Before sunrise, geese arrived on the lake. There were 36 leisurely swimming in formation enjoying early morning light. What a great way to greet the morning! Being very tired but not wanting to leave the station unattended, I put my head down on a roll of paper towels and napped until morning relief arrived soon after to make coffee.

Note for Ken Eggert: early in the morning I worked K9MOT in Illinois. My first Wisconsin station, Oconto, was also made about the same time.

We had an interesting problem with the batteries. The batteries (nearly 800 #) were loaded near the tongue of the trailer, to disconnect the trailer from Ken's truck at set-up 5 big men stood at the back of the trailer. Well, at tear-down we didn't have those big men available. Using brainpower and improvisation, we did manage to get the trailer back on the hitch.

In total, we had 56 contacts with 25-30 of them in the middle of the night.

I guess I am QRP-N, queen of radio propagation in the night at Field Day.

We had a great time, great weather, no mosquitoes, good food, and great scenery.

73 and 88,

Barbara - KB9TIV

Christmas Party

It's not too early to start thinking about our annual Christmas party.

This year it will be held at The Machine Shed at I-94 & HWY J in Pewaukee (next to the Comfort Suites). Mark your calanders for December 2, 5:00 arrival time 6:00 dinner. We will be placed at nice round tables this year so plan on a lot of QRM while feasting on tender baked ham and roasted turkey breast. Price will be around $19.00. Watch for a reservation form in coming Chatters.

Anyone interested in being on a committee to arrange for door prizes at this year's party please let me know. Lets make this another successful year end get-together.

John WB9PSE.

In Pursuit of the Elusive SWR

If any of the following statements shock your understanding or if these concepts are at variance with the "accepted" theory, it is recommended that you read the series of articles published in the April, June, August, and October, 1973 issues of QST, by Mr. Walter Maxwell, W2DU. . . I ran across these while researching the use of shortened antennas on 80 meters, in the adaptation of MVB20 requirements to the limitations of my "pint-sized" city lot. The issues quoted will provide lots of material for study on rainy days, and will yield a much fuller understanding of the most important part of your ham station. . . . THE ANTENNA.

1. REFLECTED POWER IS NOT LOST POWER: In a loss-free line, no power is lost due to reflection, and on the HF bands, reflected power loss with low-loss cable is generally insignificant.

2. REFLECTED POWER DOES NOT FLOW BACK INTO THE TRANSMITTER: It does not cause damage or excessive dissipation. Such damage is caused by improper output coupling adjustment - - not by SWR. Tank heating and arc-over is caused by under-coupling, resulting from a rise in loaded "Q".

3. ANY EFFORT TO REDUCE SWR BELOW 2:1 ON A GOOD CO-AXIAL LINE is largely a waste of time from the standpoint of increasing power transfer.

4. LOW SWR IS NOT PROOF OF A GOOD QUALITY ANTENNA SYSTEM: or even that the system is working efficiently. Rather, it may be a clue to poor operation due to high losses in the system, if a lower-than normal SWR is exhibited over a wide range of frequencies.

5. THE RADIATOR OF AN ANTENNA SYSTEM NEED NOT BE OF RESONANT LENGTH for maximum resonant current flow. The feedline need not be of any particular length, and a substantial mismatch at the antenna feedpoint will not prevent the radiator from absorbing all of the real power available at the junction.

6. IF A SUITABLE ANTENNA COUPLER CANCELS ALL THE REACTANCE developed by a non-resonant length radiator, and a random-length feedline which is mismatched at the antenna, the antenna system is resonant. Maximum current flows in the radiator, and all real power at the feedpoint is absorbed by the radiator.

7. THE SWR ON THE LINE BETWEEN THE ANTENNA AND THE TRANSMATCH IS DETERMINED ONLY BY THE MATCHING CONDITIONS AT THE LOAD: and is not changed by the matching device. The low SWR obtained through the use of the matching device indicates only the remaining mismatch between the input impedance of the transmatch and the impedance of the line from the transmitter.

8. ADJUSTING THE TRANSMATCH FOR MAXIMUM LINE CURRENT creates a mirror termination for the reflected wave, causing it to be totally reflected on arrival at the input. The tuner provides the proper reactance to cancel the equal (but opposite) reactance resulting from the amplitude and phase difference between the source and the reflected waves at the input.

9. TOTAL REFLECTION OF THE REFLECTED POWER AT THE LINE INPUT is the reason for its not being dissipated in the transmitter, and why it is conserved and not lost.

10. A DIPOLE CUT FOR 3.75 MHZ. and fed sith a good co-ax will not radiate significantly more on 3.75 MHz. than on 3.5 or 4.0 MHz., with any feeder length up to 200 ft.

11. WITH THE 3.75 MHZ DIPOLE, the feedline SWR will rise to about 5:1 at both 3.5 and 4.0 MHz, thus utilizing the co-ax as a tuned feeder, but with insignificant loss in radiated power across the entire 80 meter band.

12. WITH THE USE OF A TRANSMATCH, or simple "L" network at the line input, proper coupling can be obtained between the transmitter and the tuned co-ax feeder over the entire band with any length co-ax.

13. AS A TUNED LINE AT 4.0 MHZ., RG 8/U will handle 700 watts CW continuously, within ratings, at an SWR of 5:1. The duty cycle of SSB is far below the maximum ratings at 2 KW PEP. With a 100 ft. length, the total attenuation at 5:1 SWR is just 0.8 db.

14. HIGH SWR IN A CO-AXIAL TRANSMISSION LINE, caused by severe mismatch will not produce antenna currents on the line, nor will it cause the line to radiate.

15. SWR IN A FEEDLINE CANNOT BE ADJUSTED OR CONTROLLED in any practical way by varying the line length.

16. OF THE SEVERAL TYPES OF DIPOLES, such as thin-wire, folded, fan, sleeve, trap or co-axial, NONE will radiate more field than another, PROVIDING each has an insignificant ohmic loss, and is fed the same amount of power.

If the above series of statements were presented as a TRUE or FALSE examination, how many would you have marked TRUE? If you marked ANY of them FALSE, you should re-read the ARRL Antenna Handbook, as all of the statements are true.

The practical application of Mr. Maxwell's principles will result in an improved radiated signal, and will protect the output end of your transmitter. It will also give you a little more authority in the interminable discussions on the air, where-in SWR is cussed and discussed.

Fred

Fred Linn
NNN0BUQ/W9NZF

EVENTS

* indicates Vec Testing

Circus City SwapFest *
KSat. - Aug. 11, 2001
Sauk Co. Fairgrounds
Baraboo, WI
T/I on 147.315+ (123.0 PL

HamFesters Radio Club HamFest
Aug. 12, 2001
Will Co. Fairgrounds
Peotone,IL
T/I on146.64 - MHz (107.2
or146.52 simp.

HamFest 2001 *
Sun. - Aug. 26, 2001
Inwood Recreation Ctr.
Joliet, IL
T/I on 147.33(+)
and 224.54- MHz

Peoria SuperFest 2001 *
Fri.- Sun. Sept. 14-16, 2001
Exposition Gardens Fairgrounds
Peoria, IL
T/I on 147.075 (+)

Radio Expo 2001*
Sat. & Sun. - Sep. 22 & 23, 2001
Lake Co. Fairgrounds
Grayslake, IL
T/I on 146.16/76 MHz (107.2)

HAMFEST-Minnesota
& Computer Expo *
Sat. - Oct. 27, 2001
River Center
St. Paul, MN

30th Annual Davenport
Club HamFest/Computer show
Sun. - Nov. 4, 2001
Iowa National Guard Hangar Mt
Joy Airport
Davenport, IO
T/I on 146.88/28 MHz or
146.64/04 MHz

September

		birthdate
Earl C Winkel	KB9FUZ	Sep-06
Roger C. Zaun.....	W9UVV	Sep-07
William A. Joyce	KA9IWS	Sep-09
Rich J. Lubinski		Sep-09
Jerome J Dolezal	W9NSC	Sep-16
Terry Putchinski.....	KB9OPT	Sep-25
Chester M. Rainek	N9AAI	Sep-29
James A. Fischer.....	W9LPF	Sep-30

Happy Birthday!!!

Please, visited our Repeater.
Use it or lose it.
147.045 MHz + offset.

Meeting Schedule

Our Meeting schedule for the remainder of the year is as follows:

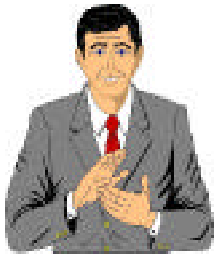
August 30,
Sept. 27
Oct. 25,
Nov. 29,
Christmas Party &
Dinner-Dec. 2

See you there!
Pancho - KA9OFA

Credits

Our thanks to our 'news contributors this month:

WB9BWP	WB9LNU	KB9TIV
K9LCQ	WB9PSE	KF9XL



Thanks also to Rita, Michelle, and Julie Doneis for their help in the proofreading dept. Our thanks goes to John Merkl and Norman Russell for making sure that the 'Chatter gets printed, stamped, and mailed.

Thanks also to Alfred Huwald and Myron Hendrickson for obtaining and serving refreshments at our meetings.

Thanks also goes to Tom Sherlowsky and Jacquie Horwitz for taking care of the raffle at the meetings.

Special thanks to all of our officers (past and present) who have tirelessly toiled for the good of the Club and Amateur Radio in general.

Many Thanks

See:

MracTechClassFall01.PDF

Email attachment

for this page.

M.R.A.C.

Meetings are held the last Thursday of each month except in December. The next meeting is Thursday - August 30, 2001.

They take place at 7:00 PM at:

Redemtion Lutheran Church
Fellowship Hall
4057 N. Mayfair Rd.
(Use the south entrance)
HANDICAPPED ACCESSIBLE

Please! Don't call the Church for information!

Have you visited our Repeater, lately?
Use it or lose it.
147.045 MHz + offset.

ERRATA

In the last issue of the 'Chatter, two errors were discovered and I'm sorry if it has caused any problem.

This one was brought to my attention by several of our members. On the last page of the Chatter I entered the wrong Club address.

The correct address is:

Milwaukee Radio
Amateurs' Club
P.O.Box 070595
Milwaukee, WI 53207-0695

The other error that I noted was that I neglected to change the Volume, number and month of our last Issue on the first and last pages. It should have been:

Volume 09 Number 4 June

I could use additional help in the proof reading deptment.

Visit our Website

http://www.qsl.net/mrac/

M.R.A.C.
Milwaukee Radio Amateurs' Club
P.O.Box 070595
Milwaukee, WI 53207-0695

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